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EXAMINER

REZA, MOHAMMAD W

ART UNIT	PAPER NUMBER
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2136

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/608,334	Applicant(s) BAZAN BEJARANO, DARIO	
	Examiner MOHAMMAD W. REZA	Art Unit 2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14, 49-60 and 62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-2, 49-60, and 62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-12, 14-2, 49-60, and 62 are presented for examination.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: claims 49-60, and 62 mentions "One or more tangible computer-readable media having computer-executable instructions". However, nowhere in the specification it is written one or more tangible computer-readable media having computer-executable instructions. Necessary correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 17-32, 49-60, and 62 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In these independent claims applicants mention "**the first protocol set and the second protocol set contain two or more protocols in common**" which is generally narrative and indefinite with the invention. Applicants do not point out clearly which options include in the present invention by these limitations. During the last interview examiner pointed it out the ambiguity of this type of claim language and correction was made to the independent

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claim 1. However, claims 17, and 49 still contain the indefinite claim language.

Examiner suggested that the limitation should be, "the **first node** and the **second node** contain two or more protocols in common". The office will interpret these words with the regarding claims as best understood for applying the appropriate art for rejection purposes.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

4. Claims 49-60, and 62 are rejected under 35 U.S.C. 101 because the claim invention is directed to non-statutory subject matter. "One or more tangible computer-

readable media having computer-executable instructions" is reasonably interpreted by one of ordinary skill as just software, it is a system of software, per se. As examiner could not find any support of "One or more tangible computer-readable media having computer-executable instructions" in the specification of the present application. So, it is assumed that the function of the medium is just software not any hardware.

Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. Similarly, computer programs claimed as computer instructions per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. Accordingly, it is important to distinguish claims that define descriptive material per se from claims that define statutory inventions. So, it does not appear that a claim reciting software with functional descriptive material falls within any of the categories of patentable subject matter set forth in § 101.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 8, 10-12, 14-15, 17-20, 24-31, and 49-52, 56-60, and 62 are rejected under 35 U.S.C. 102(b) as being anticipated by Helig et al hereafter Helig (US Patent Application 20020078371).

6. As per claim 1, Helig discloses a method comprising: receiving a security authorization request to establish a secure connection between an internal node having a first protocol set, the internal node being internal to a security-enabled domain, and an external node having a second protocol set, the external node being external to the security-enabled domain (paragraphs, 0014-0015, 0017, 0081, 0088); determining that the first node and the second node contain two or more protocols in common (abstract, paragraphs, 0078, 0086, 0089); determining a selected protocol from the two or more protocols in common: and automatically establishing a secure connection between the external node and the internal node based on the selected protocol (paragraphs, 0053, 0062, 0091).

7. As per claim 2, Helig discloses a method wherein the external node comprises at least one of a computer and a network-enabled wireless device (paragraph, 0043).

8. As per claim 3, Helig discloses a method wherein the internal node comprises at least one of a client computer and a server (paragraphs, 0009, 0010).

9. As per claim 4, Helig discloses a method wherein the security-enabled domain

comprises a distributed directory domain (paragraphs, 0011-0012).

10. As per claim 8, Helig discloses a method wherein the security authorization request is generated by the external node (paragraphs, 0133, 0142).

11. As per claim 10, Helig discloses a method wherein the security authorization request is generated by the internal node (paragraph, 0118, 0014)).

12. As per claim 11, Helig discloses a method wherein the step of receiving the security authorization request is executed by the external node (paragraph, 0019).

13. As per claim 12, Helig discloses a method wherein a step of terminating the secure connection when a session between the external node and the internal node is complete (paragraph 0053).

14. As per claim 14, Helig discloses a method wherein a step of selecting a protocol to use in establishing the secure connection when a plurality of matching protocols are found (paragraph, 0062).

15. As per claim 15, Helig discloses a method wherein a step of authenticating at least one of the internal node and the external node (paragraph, 0019).

16. As per claim 17, Helig discloses a system comprising: an internal node, the internal node being internal to a security-enabled domain, the internal node having an associated first protocol set; and
a negotiation engine, the negotiation engine configured for: (1) receiving a security authorization request to establish a secure connection between the internal node having a first protocol set and an external node being external to the security-enabled domain, the external node having a second protocol set (paragraphs, 0014-0015, 0017, 0081,

0088), (2) determining that the first protocol set and the second protocol set contain two or more protocols in common (abstract, paragraphs, 0078, 0086, 0089), (3) determining a selected protocol from the two or more protocols in common, and (4) automatically establishing a secure connection between the external node and the internal node based on the selected protocol (paragraphs, 0053, 0062, 0091).

17. Claims 18-20, and 24-31 are listed all the same elements of claim 2-4, and 8, 10-15 but in system form rather than method form. Therefore, the supporting rationales of the rejection to claim 2-4, and 8, 10-15 apply equally as well to claim 18-20, and 24-31.

18. As per claim 49, Helig discloses one or more tangible computer-readable media having computer-executable instructions embodied comprising: receiving a security authorization request to establish a secure connection between an internal node, the internal node being internal to a security-enabled domain, and an external node, the external node being external to the security-enabled domain (paragraphs, 0014-0015, 0017, 0081, 0088); determining that the first protocol set and the second protocol set contain two or more protocols in common (abstract, paragraphs, 0078, 0086, 0089); determining a selected protocol from the two or more protocols in common: and automatically establishing a secure connection between the external node and the internal node based on the selected protocol (paragraphs, 0053, 0062, 0091).

19. Claims 50-52, 56-61, and 62 are listed all the same elements of claim 2-4, and 8, 10-15 but in computer readable form rather than method form. Therefore, the

supporting rationales of the rejection to claim 2-4, and 8, 10-15 apply equally as well to claim 50-52, 56-61, and 62.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 5-7, 9, 16, 21-23, 32, 53-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heilig et al hereafter Heilig (US Patent Application 20020078371) in view of Roddy et al hereafter Roddy (US Patent 6,845,452).

21. As per claim 5, Heilig does not disclose a method wherein the security-enabled domain comprises a certificate-based domain. However, in the same field of endeavor, Roddy discloses wherein the security-enabled domain comprises a certificate-based domain (col. 7, lines 7-25, lines 57-67).

Accordingly, it would be obvious to one of ordinary skill in the network security art at the time of invention was made to have incorporated Roddy's teachings of certificate based security enable domain with the teachings of Heilig, for the purpose of suitably using the security enable internal node by certificate based security (col. 7, lines 7-25, lines 57-67).

22. As per claim 6, Heilig does not disclose a method wherein the certificate-based domain comprises a Kerberos-enabled domain. However, in the same field of endeavor,

Roddy discloses wherein the certificate-based domain comprises a Kerberos-enabled domain (col. 8, lines 45-67, col. 7, lines 8-24)

The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 6.

23. As per claim 7, Heilig does not disclose the matching protocol comprises an X.509 certificate. However, in the same field of endeavor, Roddy discloses the matching protocol comprises an X.509 certificate (col. 12, lines 27-60).

The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 7.

24. As per claim 9, Heilig does not disclose wherein the selected protocol is determined based on at least one of a set of criteria, the set of criteria comprising a transfer speed and a bit depth of keys wherein the step of receiving the security authorization request is executed by the internal node. However, in the same field of endeavor, Roddy discloses wherein the selected protocol is determined based on at least one of a set of criteria, the set of criteria comprising a transfer speed and a bit depth of keys wherein the step of receiving the security authorization request is executed by the internal node (col. 7, lines 7-25, lines 57-67).

The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 9.

25. As per claim 16, Heilig does not disclose wherein the step of authenticating comprises communicating a certificate to a certificate authority. However, in the same

field of endeavor, Roddy discloses wherein the step of authenticating comprises communicating a certificate to a certificate authority (col. 12, lines 27-60).

The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 16.

26. Claims 21-23, and 32 are listed all the same elements of claim 5-7, and 9 but in system form rather than method form. Therefore, the supporting rationales of the rejection to claim 5-7, and 9 apply equally as well to claim 21-23, and 32.

27. Claims 53-55 are listed all the same elements of claim 5-7, and 9 but in computer readable form rather than method form. Therefore, the supporting rationales of the rejection to claim 5-7, and 9 apply equally as well to claim 53-55.

Conclusion

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad w. Reza whose telephone number is 571-272-6590. The examiner can normally be reached on M-F (9:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MOAZZAMI NASSER G can be reached on (571)272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

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applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Nasser G Moazzami/

Mohammad Wasim Reza

Supervisory Patent Examiner, Art Unit 2136

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